C L A I M S

1. A method for obtaining dimensionally and structurally stable objects, in particular disposable containers, from a flexible film rewindable on a reel, characterised by:

- preparing a flexible film rewindable on a reel, which, at least in those regions which in the obtained object are required to be substantially rigid, is associated with a structurally transformable substance inert with respect to the film and at least one passive activator therefor,
- forming the object from the film forming material prepared in this manner, and
- during any one stage in the formation of the object, administering an energy compatible with said activator to start a structural transformation reaction of said substance and convert said regions from flexible to substantially rigid.

2. A method as claimed in claim 1, characterised by:

- preparing a flexible film which, at least in those regions which in the obtained object are required to be substantially rigid, is associated with a substance which is structurally transformable and inert with respect to the film and at least one passive activator therefor, said substance and said activator being of a type no signficantly interacting with the film, but able to form an agglomerate therewith,
- forming the object from the film prepared in this manner, and

- during any one stage in the formation of the object, administering energy to said activator to start a structural transformation of said substance and convert said regions from flexible to substantially rigid.

3. A method as claimed in claim 1, characterised by:

- preparing a flexible film starting from a liquid prepolymer mixed with reinforcing components of fibrous and/or pulverulent type,
- forming the object from the film prepared in this manner, and
- during any one stage in the formation of the object, administering energy to said activator to start a structural transformation of said substance leading to the obtaining of a matrix reinforced with said reinforcing elements.

4. A method as claimed in claim 2, characterised by using structurally transformable substances with ablative properties, confined between gas-impermeable films.

5. A method as claimed in claim 2, characterised by using structurally transformable substances with expanding properties, confined between gas-impermeable films.

6. A method as claimed in claim 2, characterised by applying the structurally transformable substance and its passive activator to the flexible film after it has been prepared.

7. A method as claimed in claim 1, characterised by using a cross-linkable substance as the structurally transformable substance.

8. A method as claimed in claim 1, characterised by using a polymerizable substance as the structurally transformable substance.

9. A method as claimed in claim 2, characterised by applying to the flexible film a shape memory structure based on microfilaments or flexible fibres, which is maintained at a temperature lower than the austenitic transformation temperature and, after having formed the object, is heated to a temperature higher than said austenitic transformation temperature, to obtain the irreversible transformation of said structure from flexible to substantially rigid.

10. A method as claimed in claim 2, characterised by using a photopolymerizable unsaturated resin as the transformable substance.

11. A method as claimed in claim 10, characterised by using an acrylated urethane as the structurally transformable substance.

12. A method as claimed in claim 10, characterised by using a monoacrylate monomer as the structurally transformable substance.

13. A method as claimed in claim 10, characterised by using a mixture of an acylated urethane and a monoacrylate monomer as the structurally transformable substance.

14. A method as claimed in one or more of claim 11 to 13, characterised by using a hydroxycyclohexylphenylketone as the activator for the structurally transformable substance.

15. A method as claimed in claim 4, characterised by using a silicone as the structurally transformable substance.

16. A method as claimed in claim 5, characterised by using a polyurethane as the structurally transformable substance.

17. A method as claimed in claim 5, characterised by using a polypropylene as the structurally transformable substance.

18. A method as claimed in claim 5, characterised by using a polyethylene as the structurally transformable substance.

19. A method as claimed in claim 5, characterised by using an acetal substance as the structurally transformable substance.

20. A method as claimed in claim 3, characterised in that the film is prepared form a formaldehyde melamine.

21. A method as claimed in claim 1, characterised by subjecting the film to thermal energy.

22. A method as claimed in claim 1, characterised by subjecting the film UV radiation.

23. A method as claimed in claim 1, characterised by subjecting the film to IR energy.

24. A method as claimed in claim 1, characterised by subjecting the film to visible energy.

25. A method as claimed in claim 1, characterised by subjecting the film to ultrasonic energy.

26. A method as claimed in claim 1, characterised by subjecting the film to electronic energy.

27. A method as claimed in claim 1, characterised by subjecting the film to ionic energy.

28. A method as claimed in claim 1, characterised by subjecting the film to electrochemical energy.

29. A method as claimed in claim 1, characterised by subjecting the film to electromagnetic energy.

30. A method as claimed in claim 1, characterised by subjecting the film to nuclear energy.

31. A method as claimed in claim 1, characterised by applying the transformable substance to said flexible film to a measured extent.

32. A method as claimed in claim 6, characterised by applying the transformable substance to the entire surface of said flexible film and administering energy to a measured extent.

33. A method as claimed in claim 6, characterised by applying a protective further film to the flexible film after the transformable substance has been applied.

34. A method as claimed in claim 6, characterised by applying the transformable substance to the flexible film, to which energy is then administered subsequently by the user.

35. A method as claimed in claim 6, characterised by subjecting the flexible film to punching after the transformable substance has been transformed, to obtain in this manner a flat empty package which is subsequently filled by the user.

36. A method as claimed in claim 6, characterised by also applying the transformable substance in correspondence with the point from which the package contents are to be delivered.

37. A method as claimed in claim 1, characterised in that after the transformable polymer substance has been transformed, the flexible film

is folded over and joined together along its longitudinal edges to form a tubular element, which is then welded transversely, filled, closed, separated from the tubular element and formed to assume the predetermined final configuration of the package.

38. A method as claimed in claim 1, characterised in that while the film is being treated with the transformable substance it is made to undergo forming within a mould to form therein trays with at least their corners stiffened.

39. A method as claimed in claim 6, characterised by applying to the flexible film a second flexible film of transformable material and administering energy to the combination to a measured extent in correspondence with those regions which in the obtained object are required to be substantially rigid.

40. A method as claimed in claims 6 and 8, characterised by applying to the flexible film one of the two components of a two-component polymerization or cross-linking system, and applying the second component at the time of forming the element, at least one of the two components being applied to a measured extent.

41. A dimensionally stable object characterised by being obtained by the method of one or more of claims 1 to 40.

42. An object as claimed in claim 41, characterised by being a container of three-dimensional shape with flexible walls and stiffened corners.

43. An object as claimed in claim 41, characterised by being a container of three-dimensional shape with at least part of the walls stiffened and mutually cooperating along corners, in which the material has been maintained flexible.

44. An object as claimed in claim 42, characterised in that at least one flexible wall thereof comprises in correspondence with the scheduled delivery apertures a small stiffened region easy to tear away from the surrounding wall portion.

45. A film for obtaining structurally stable objects, in particular disposable containers characterised by comprising at least in those regions which in the obtained object are required to be substantially rigid a substance which is structurally transformable and inert with respect to the film and at least one passive actuator thereof, said actuator, when conveniently energized, starting a structural transformation of said substance to convert said regions from flexible to substantially rigid.